To: Skadowski, Suzanne[Skadowski.Suzanne@epa.gov]; Montgomery, Michael[Montgomery.Michael@epa.gov]; Albright, David[Albright.David@epa.gov]

From: Zito, Kelly

Sent: Tue 1/27/2015 11:20:45 PM

Subject: FW: Making sure I understand all the well numbers.

Class II Wells Injecting into Non-Hydrocarbon Producing Formations.xlsx

From: Baker, David [mailto:DBaker@sfchronicle.com]

Sent: Sunday, January 25, 2015 5:02 PM

To: Zito, Kelly

Subject: Making sure I understand all the well numbers.

Kelly,

Thanks for getting Jared on the line, especially on a day with such a huge settlement to announce.

DOGGR on Friday sent me their spreadsheet of 532 injection wells that pumped into aquifers that didn't contain hydrocarbons. I've attached it here. I've spent much of my Sunday shift sorting it in different ways, and the numbers don't quite line up with what Jared was saying.

The first, most important number *does* line up (well, it comes extremely close). The spreadsheet shows that there are or were 175 wells injecting into aquifers with less than 3,000 ppm TDS. Jared said there were 176 wells injecting into sub-3,000 TDS aquifers that had no underlying exemption. Although it's one well off, it sounds like we're talking about the same wells here, correct?

After that, it gets a little murkier. He said there were 327 injection wells hitting aquifers whose TDS counts lay between 3,000 and 10,000. In the DOGGR spreadsheet, there are 275 wells that fall into that category, a significant difference. Then there are 81 wells with no aquifer TDS data. Jared mentioned the wells without TDS data, but if you add those to the wells between 3,000 and 10,000 TDS, you get 356 wells, not 327.

That begs the question: are you guys working off a different spreadsheet?

One other important number to clear up: Jared said there were 108 wells injecting into aquifers that DOGGR treated as exempt. Had the EPA granted exemptions for any of those aquifers? And how does that number fit together with the 176 wells that had TDS below 3,000 parts per million? Is the 108 a subset of the 176? Or were some of the 108 wells injecting into aquifers above 3,000 TDS?

Not sure if it's easier to go over these questions in e-mail or over the phone. Let me know what you think.

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